

ABSTRACT OF THE DISCLOSURE

A garbage collector that reclaims memory for a mutator does so space-incrementally, employing remembered sets associated with respective heap regions to keep track of where the mutator has notified it of writing references into the associated regions. The collector reserves some heap regions for objects that it has found to be “popular,” i.e., to which it has observed a large number of references. When the mutator writes such a reference, it refrains from making the kind of notification to which the garbage collector would otherwise respond by updating a remembered set. Although this deprives the garbage collector of the ability to maintain complete remembered sets for popular-object regions, those regions usually have no unreachable objects or very few, so the collector can dispense with collecting them or can collect them less frequently, in a way that does not rely on remembered sets.